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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/666,300	09/21/2000	Raymond Freymann	951/48943	8406

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EXAMINER

MICHALSKI, JUSTIN I

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/666,300	<b>Applicant(s)</b> FREYMAN ET AL.	
	<b>Examiner</b> Justin Michalski	<b>Art Unit</b> 2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see response, filed 15 August 2005, with respect to the rejection(s) of claim(s) 1, 8, and 9 under 3 USC 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kunimoto.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunimoto (US Patent 5,835,605) in view of Miller (US Patent 5,237,617).

Kunimoto discloses a device for electroacoustic sound generation in a motor vehicle, said device comprising: an engine output signals (Fig. 2, output of 21); a signal processing unit connected to and receives the engine output signals (Fig. 2); a loudspeaker unit having at least one loud speaker wherein said loudspeaker unit is connected to said signal processing unit (output of 24); a synthesizer connected with or integral with said signal processing unit said synthesizer outputting a synthetic sound components signal (output of 22) to a device for adding said synthesizer output signal to said output of said engine output signal (24).

Kunimoto does not disclose that the engine output signal is an output of a sound pressure sensor positioned proximal to or within one of an intake tract and an exhaust tract of the motor vehicle. Miller also discloses a system for generating sounds for a motor vehicle including a sound pressure sensor (i.e. engine output signal) (exhaust 24). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a sound pressure sensor as an input signal for a sound generation system in order to produce a sound related to the operating condition of the engine.

Regarding Claim 2, Kunimoto further discloses providing at least one sinusoidal frequency that is a function of an engine speed of said motor vehicle (Fig. 2, engine speed information).

Regarding Claim 3, Kunimoto further discloses a memory unit containing values for at least one of amplitudes and phases of sinusoidal oscillations as a function of the engine speed (22).

Regarding Claim 4, Kunimoto further discloses one input for input signals indicating at least one of throttle positions, accelerator pedal position (Fig. 2, Accel information), and input parameters corresponding signals and wherein at least one of the amplitude and sound characteristics of signals generated by the synthesizer are variable as a function of said input signals.

Regarding Claim 5, Kunimoto discloses synthesizer (22) as a function of the engine output signal and Miller discloses the synthesizer output as a function of the sound pressure signals (24).

Regarding Claim 6, Miller further discloses a synthesizer (synthesizer 32) which outputs a predefined sound in response to an indication of a thrust operation (sensors 13, 14, 16, 17, 23, and 24 sense thrust operation) of a motor vehicle (Miller discloses processor 37 and chip 38 supplies synthesizer 32 with signals (Column 4, lines 11-18) which may contain pre-recorded (i.e. predefined) sounds (Column 4, lines 54-57).

Regarding Claim 7, Kunimoto further discloses said signal processing unit includes a filter unit for filtering a signal from said sound pressure sensor and wherein said filter provides an output which changes the sound characteristic of sound detected by said sound pressure sensor (filter 23).

Regarding Claim 8, Kunimoto discloses a device for electroacoustic sound generation in a motor vehicle, said device comprising: an engine output signals (Fig. 2, output of 21); a signal processing unit (Fig. 2); a loudspeaker unit having at least one loud speaker wherein said loudspeaker unit is connected to said signal processing unit (inherent in Fig 2 to produce an audible sound output); a synthesizer connected to and receiving an output of said sound pressure sensor and connected with or integral with said signal processing unit whereby synthetic sound components are added to said signal generated from said engine output signals (22); wherein said signal processing unit includes a means for mixing the sound from said sound pressure sensor and from said synthesizer as a function of operational parameters of said motor vehicle (24).

Kunimoto does not disclose that the engine output signal is an output of a sound pressure sensor positioned proximal to or within one of an intake tract and an exhaust tract of the motor vehicle. Miller also discloses a system for generating sounds for a

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motor vehicle including a sound pressure sensor (i.e. engine output signal) (exhaust 24). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a sound pressure sensor as an input signal for a sound generation system in order to produce a sound related to the operating condition of the engine.

Regarding Claim 9, Kunimoto disclose an electroacoustic sound generator for a motor vehicle comprising: an engine output signals (Fig. 2, output of 21); a signal processing unit including a first input for receiving an output of said engine output signals and a second input for receiving a rotational speed signal (Fig. 2, engine speed information) from said motor vehicle, said signal processing unit comprising a synthesizer (22) including said first input for receiving said output of said sound pressure sensor (signal from 21 to 22) for outputting synthetic sound components signals and said signal processing unit further including a device for adding said synthetic output sound components signals to output signals generated from said sound pressure sensor (24); and a loudspeaker system connected with an output of said signal processing unit (output of 24).

Kunimoto does not disclose that the engine output signal is an output of a sound pressure sensor positioned proximal to or within one of an intake tract and an exhaust tract of the motor vehicle. Miller also discloses a system for generating sounds for a motor vehicle including a sound pressure sensor (i.e. engine output signal) (exhaust 24). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a sound pressure sensor as an input signal for a sound

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generation system in order to produce a sound related to the operating condition of the engine.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (571)272-7524. The examiner can normally be reached on M-F 7-3:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571)272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JIM



December 12, 2005



HUYEN LE  
PRIMARY EXAMINER

001260-00599960

